

Name: _____

Date: _____

A2T Solving Rational Inequalities

Mr. Callahan

For each inequality below, express your answer

- a) As a number line
- b) Using Set Builder Notation
- c) Using Interval Notation

1. $\frac{x+4}{2-x} \geq 0$

10. $\frac{x-8}{x} + x - 3 \leq 0$

19. $x - \frac{10}{x-1} \geq 4$

2. $\frac{x}{x+2} < 0$

11. $\frac{3}{x-2} \leq -1$

20. $\frac{(x+1)^2(x+2)}{x-1} \geq 0$

3. $\frac{x+5}{x-1} > 0$

12. $\frac{3x+1}{x-1} \geq 2$

4. $\frac{6}{x-3} > 0$

13. $\frac{4}{x+2} > 2$

5. $\frac{(x+2)(x-1)}{4-x} \geq 0$

14. $\frac{1}{4} < \frac{7}{7-x}$

6. $\frac{(6-x)(3+x)}{x+1} \leq 0$

15. $\frac{x+2}{x-6} \geq -3$

7. $\frac{x^2 - 5x + 4}{x} > 0$

16. $\frac{x-8}{x+6} \leq 2$

8. $\frac{x^2 - 16}{(x-1)^2} < 0$

17. $\frac{2}{x(x-1)} < 1 + \frac{2}{x-1}$

9. $\frac{3x+1}{x+4} \geq 1$

18. $4 + \frac{1}{x} \geq \frac{10}{2x}$